ompetence still living.

While Mr. Bancro(t seknowledges that the enter portion of Amska is practically worthess, he points out that the cultivable and habitable remnant is of far greater extent and importance than would be supposed by those who fail to appreciate the vastness of the Torri-tory taken as a whole. How few of us are alive to the facts that "the area of Alaska is greater than that of the thirteen original States of the Union, its extreme length being more than 2,000 miles and its extreme breadth about 1,400; that its coast line, including bays and islands, is greater than the circumference of the earth; that the island of Unalaska is almost as far west of San Francisco as San Francisco is west of Washington, while the distance from the former city to Fort St. Michael is greater than that from San Francisco to Panama." But how much of this continental area can be turned to ecount by man? That is the point on which light is needed by those persons who have doubted whether Russian America is worth the \$7,200,000 that Mr. Seward paid for it. On this ead Mr. Bancroft offers us tolerably definite Information. He shows that the most habitable portions of Alaska, lying, as they do, mainly between 55° and 60° N., are in about the latitude as Scotland and southern Scandinavia. The superficies, in leed, of this section of the Territory is greater than that of Scotland and southern Scandinavia combined. and there are large tracts of it where the mean yearly temperature is higher than that of Stockholm or Christiania, and where it is milder in winter, with a less fall of both rath and snow than in the southern portion of Sweden. What ground, then, is there for the Impression that Alaska is incapable of autiporting a white population, or what justings. tion is there in the nature of things for the fact that it at this day contains less than a thousand white inhabitants, while the com-bined population of Scotland and Scandinavia falls but little short of ten millions?

The truth is that "all along the sweep of the southern Alaskan seaboard Europeans may dwell in comfort; an average temperature is The winter, which, although not severe, is stormy, breaks up in March, and during April boats go out after furs. It is true, on the other hand, that "for a considerable part of the year there is a continued dampness caused by the frequent fogs and rain." This seems at Arst sight inconsistent with a statement quoted above, but the author probably has in view different sections of the country. soil is fertile, though in places wet. Grain does not ripen, but grasses thrive almost everywhere on the lowiands. Berries are plentiful, particularly cranberries, though the sunlight is scarcely strong enough to flavor them well. Immense apruce forests tower Prince William Sound and about Sitka. Kodiak is a good grazing country, capable of sustaining large droves of cattle. On the Aleutian Islands trees do not grow, but the grasses are luxuriant."

It is, of course, the Japan current which performs for the Aleutian Islands and the southern seaboard of Alaska the same calorific function which the Guif Stream discharges for Boandinavia. It is this great northward flow of the Pacific's equatorial waters that evokes the fogs and rain of Sitka, and that clothes the Alaskan mountains to the height of more than a thousand feet with dense growths of spruce, alder, willow, hemlock, and yellow cedar.

But what has up to this time been done to develop the resources of Alaska? Although the treaty by which the purchase was made to Russian residents the rights American citizens, seventeen years clapsed before any legislative steps were taken to make good the guarantee. After 1847 the authority of the United States Government could not obviously be represented at Sitka by a Council and not until the autumn of 1834 was it represonted by a Territorial Governor. Up to the very recent date at which this volume was published. no fruitful or serious endeavors were known to have been made by the Territorial administration to use the inrgo discretionary powers conor the improvement of the country's natural capabilities. To the enterprise of large private companies is due the prosecution of the scal fisheries, and of the gold mines to which of late considerable attention has been directed. For the application of individual cannot and labor there is as yet but small encouragement. A country where there is no commerce, where there are few industries, where there are no schools except those runorited by charity, where no title can as yet be gained to find, where there are no representative institution, and no settled administration, and we re the rain fail is from five to eight feet a year deep hold out any very strong indicements to epigrants. Although in name a civil and judicial district. Alaska issitd, in practice, at this time—aimest aimsteen years after its cassion—little more than a cantons district." There is little probability of a coursed changs till after the year 1800, when the leave of the Alaska C memoral Company extress and whom a distion companies is due the prosecution of the scal rear 1899, when the lenge of the Alaska C ramercial Company extress and when a division of its privileges may excite a considerable influx of population. It seems theory, therefore, that the forecast of the Perritory's purchase will be quite exactly varified. What, Mr. Beward, "asked a friend," do you consider the most important measure of your political career?" The purchase of Alaska, he rapplied, but it will take the people a generation to find it out."

Why the Point Regions Once Were Warm. Two problems of deep interest to every one beset with longing to know something of the past and future of the earth he dwe's upon, are discussed with indisputable competence in Climate and Cosmology by JAMES Choll (Appletons). The object of this book is to restate in the light of later research and apeculation the concusions which the author formulated years ago with relation, first, to the cause of the mild climates which the polar regions andoubtedly at one time enjoyed, and, secondly, to the origin and age of the sun's heat. The criticisms provoked by his views in many quarters, and the modifications to which his theory on the first-named subject has been subjected, even in the hands of those disposed partially accept it, have been carefully examined, with the result that the author's convictions remain substantially unchanged. It concerns the reader who desires to learn comething of the position taken on questions of fundamental import by scientists of ighty, if not conclusive, authority, to hear Mr. Croll's deliberate defence and reassertion of his much canvassed hypothesis. As to the controversial side of his book, we must content ourseives with remarking that the rejoinders to his critics are always characterized by great ability, and to our mind are in almost every case convincing. We must confine ourselves to a bare outline of the substantive opinions, now finally promulgated, on the capital objects of inquiry above mentioned.

It is an indisputable datum of geology that at some former spech the polar regions enjoyed a comparatively mild and equable climate, and that places now buried under per-

manent snow and ice were then covered with a rich and luxuriant vegetation. Attempts to account for this remarkable state of things have been made by postulating a different dis-tribution of sea and land, a change in the bilguity of the coliptic, and a displacement of the earth's axis of rotation. The reasons for rejecting such theories are set forth at length by Mr. Croll; but passing over these, we come at once to the explanation which he gave former work, and which he is now more than ever persuaded is the true one. The steps by which he reaches his conclusions are the foilowing: The annual quantity of heat received from the sun at the equator is to that at the poles as twelve to five, and if the same percentage of rays were cut off by the atmosphere at both places, their temperatures would differ in the same ratio. As a matter of fact, more rays are cut off at the poles than at the counter, and consequently the difference in the amount of heat received from the sun is actually much greater. But we may waive this hypothetical excess of polar cost, because in truth the polar temperature is very much nearer the equatorial than would be indicated by the ratio five to twelve, and the problem is to account for this surprising approximation. The mean difference of temperature ought not to be less talthough probably more) than 200° Pahr., but the actual difference does not much if at all, exceed 80°. But since this paradoxical increment of heat does not come directly from the sun's rays, how is it obtained? Obviously by a transferrence of heat from the equator to the poles. But how was this transferrence effected? There were only two agencies available, to wit, serial or ocean currents. But Mr. Croll bas lemonstrated that the amount of heat conveyable from the countor to the poles by means of aerial currents is trifling; consequently the transferrence must be attributed to the currents of the ocean. Yet, if it can transform a point into a temperate climate, the influence of ocean currents in the distribution of heat over the globe mus manifestly have been hitherto enormously underestimated; and it becomes important to de termine with as much exactitude as possible the amount of heat actually being conveyed northward from the equator by this agency Now the only great current whose volume and temperature have been ascertained with an approach to certainty is the Guif Stream. The absolute amount of heat borne northward by that stream is computed to be more than equa o all the heat received from the sun within a some of the earth's surface extending thirtytwo miles on each side of the equator. Or in other words, as a little calculation will demonstrate, the amount of equatorial heat carried into temperate and polar regions by this stream alone is equal to one-fourth of all the heat received from the sun by the North Atlantic from the Tropic of Cancer up to the Aretic Circle. But there are several other great cur-

perature between the equator and the poles should be reduced from 200° to 80°. The real cause of former comparatively mild climates in Arctio regions is thus revealed: 'All that was necessary to confer on, say, Green land a condition of climate which would admit of the growth of a luxuriant vegetation, is simply an increase in the amount of heat transforred from equatorial to Arctic regions by means of ocean currents." Nor is any very great amount of increase needed for the purpose, for Mr. Croil has shown in this volume that "the soverity of the climate of that re gion is about as much due to the cooling effect of the termanual snow and les as to au sernal want of heat. An increase in the amount of warm water entering the Arctic Ocean, just sufficient to prevent the formation of permanent ice, is all that is really necessary for were it not for the presence of fre the summers of Greenland would be as warm as those of England." The same considerations, of course, point to another result of a convercharacter. "If a large increase in the volume and temperature of the stream would confer or Greenland and the Arctic regions a condition

of climate something like that of Northweston

Europe, it is obvious that a large decrease in its

temperature and volume would, on the other

hand, lead to a state of things in northwestern

Europe approaching to that which now pre-

rents, some of which, though not yet subjected

to as cereful mer suration, are believed to con-

vey as much heat poleward as the Gulf Stream

Taking into account, then, the influence of the

whole system of oceanic circulation, we can no

onger feel surprised that the difference of tem-

in Greenland. A decrease leads to a glacial, an increase to an interglacial condition We are brought next to the inquiry, what, acording to Mr. Croll, were the causes of such prechant changes in the volume and temperature of the ocean currents. His position is that adequate causes may be found in physical agencies, stimulated or checked by changes in the eccentricity of the earth's orbit, provided the heat-transferring power of such agancies is suffered to be operative by such geographical conditions as now exist, and which there is not an atom of evidence for believing have been materially altered since the glacial epoch. It is unnecessary to postulate the submergence or the elevation of continents, or the existence of extra inter-continental channels, transporting northward additional heat currents, and thus contributing to ameliorate the climate of the pole. The geographical conditions and the physical agencies which actually exist are amply sufficient to account for all the facts. We quote in Mr. Croil's own words the conclusions which it is the object of this volume to substantiate. "When the eccentricity of the earth's orbit is at a high value and the northern winter selstice is in perihelion, agencles are brought into operation which make the southeast trade winds stronger than the northeast, and compel them to blow over upon the northern hemisphere as far probably as the Trople of Cancer. The result is that all the great equatorial currents of the ocean are impelled into the northern hemisphere, watch thus, in consequence of the immense accumulation of warm water, has its temperature raised, and snow and ice to a great extent must ther disappear from the Arctic regions. When, contrariwise, the precession of the equinoxes brings round the winter selstice to aphelion.

from the northern hemisphere, its temperature sinks enormously, and snow and ice begin to accumulate in temperate regions." It will, of course, be noted that, according to this tenory, the maximum of cold at the north pole would result from the coincidence of a maximum coventricity in the earth's orbit with the occurrence of winter in anhelion. As to the calculable periodicity of the former clement, we may remark that the tables of the cocontricity of the earth's orbit, published many years ago by Mr. Croft, have been since vertfled by the laborious computations of Mr. Stock-well and Prof. McFarland. Mr. Croll is also at poins to show that the mean interval between two consecutive interglacial periods (corres; onding to the time required by the equinoctial point to pass from perihelion round to perihelion) is no: as is commonly assumed, 21,000, but 23,230 years. At intervals, therefore, of from ic,000 to 12,000 years the north pole will exparience the extreme of cold and the extreme of heat compatible with the coincident geographithe extreme of cal conditions, and with the coincident eccentricity of the earth's orbit, the latter factor

the condition of things on the two hemispheres

is reversed, and the northeast trades then blow

over upon the southern hemisphere, carrying

the great equatorial currents along with them. The warm water being thus wholly withdrawn

being ascertainable from Croll's tables. The sinal result, therefore, to which Mr. Croil would lead us is that those warm and cold periods which have a ternately prevailed during past ages are simply the great secular summers and winters of our globe, depending summers and winters of our globe, depending as fruly as the annual ones do upon planetary motions, and like them also fulfilling some important ends in the economy of nature. In an attempt to estimate the soundness of Mr. Croil's theory—which he has a right to denominate the "physical" to distinguish it from Mr. A. R. Wallace's, which may be termed the physico-geographical, or from Sir Charles Lycil's, which was simply geographical—we should not forget that it differs from all presented to enjectural explanations in this important to a large circle of readers.

Calirch, which would scarcely sat air orthodel helievers.

"We College clink" by flects lawes from these serves which few will care to put as de united they have read it in what is probably intended for Wellesley College. Massa, stantis, and emplessed, but high-minded; the other a rich man's daughter, butterforce and mineral supports and exceptions and frivolous, but not make the college and accomplished somes. The story is sincurary devoid of airlace the college of th

portant respect, that "It contains no hypo thorical elements. All the causes are real; none hypothetical. The conclusions are all deduced either from known facts or from admitted physical principles, and in no case are they based on hypotheses. Hypotheses will be found in my cosmological discussions, but none when I deal with elimatological ques-

11. It is one of Mr. Croll's cosmological discassions, and the helpful hypothesis which is the outcome of it, to which we would now in vite a moment's attention. We refer to the chapters of this volume in which the origin and age of the sun's heat are considered. Let is first remind the reader of the reef on which the enemies of the avolutionary hypothesis have believed it must be wrecked. It has been supposed that geology and Darwinian biology rere irremediably antagonized by physics For the evolutionists require as an indispensable condition of their hypotheses a tract of solar time incomparably greater than the age at ributable to the sun's heat by the opinions which have hitherto been generally acby physicists, Combustion certainly cannot be the cause of the soiar heat; were the sun composed of coal, its combustion would not maintain the present rate of radiation for 5,000 years. It is now commonly held that the store of heat possessed by the sun could only have been derived from gravitation, and the preferred form of the gravitation theory is that a Ivanced by Helmhonz, who assumes that the sun originally existed as a nebulous mass. devoid of temperature, filling the entire space presently occupied by the solar system and extending into space indefinitely beyond the outermost known plant. We can compute by the Helmholiz formula the total amount of heat generated by gravitation in the condensation of this mass to an orb of the sun's present size. This amount would suffice for a little more than 20,-000,000 years, or at the utmost-admitting that the sun's density probably increases toward the centre-30,000,000 years. But for the production of the stratified rocks geologists require at least 90,000,000 years, and the period allowed by Heimholtz would fall far short even of the time domanded by biologists for the evolution of organic life.

Here Mr. Croll intervenes with a cosmologial hypothesis, which aims to harmonize physics and the evolutionary theory. He denies that Helmholtzhas a right to begin with the assumption of a cold nebulous mass (to whose endensation the sun's heat is ascribed), for the moment that the mass existed as such. condensation-under the influence of the mutual attraction of its particles-would comnence. We must, therefore, assume either that the mass was created at the moment condensation began, or that prior to this moment it existed under some other form." As scientists would scarcely besitate to adopt the latter alternative. Mr. Croit proceeds to the next question, What was the condition in which the nebulous mass existed before condensation It was, he maswers, "a condition of excessive temperature, the repulsive force of heat preventing the particles from approaching one another. In short, the excessive temperature was the very cause of the nebulous condition."

Well, then, we have by this hypothesis an incalculable amount of heat to start with, in addition to that evolved in the condensing process. "If we admit," says Mr. Croil, "that the nebulous mars was in a state of Incandescence prior to condensation, it will really be difficult offx any limit either to the age of the sun or to the amount of heat which it may have originally possessed. The twenty or thirty million years' heat obtained by condensation may, in such a case, be but a small fraction of the total quantity possessed by the mass." But from what source came the original heat of the nebulous mass? What caused its incandescence? Mr. Croll finds an answer in the dynamical theory of heat, and suggests that " the energy in t eform of heat possessed by the mass may have been derived from motion in space. Two bodies' each one-half the mass of the sun, moving directly toward each other with a velocity of 476 miles per second, would by their concussion generate in a single moment fifty million years heat. Two such bodies coming into collision with that velocity would be dissinated into repor and converted into a nebulous mass by such an inconceivable amount of heat as would be thus generated: and when condensation on cooling took place, a spherical mass like that

of the sun would result."

Is there anything extraordinary in the velocity which Mr. Croil finds would be required to generate the fifty million years' heat in the case of the two supposed bedies? "A count having an orbit extending to the path of the planet Neptune, approaching so near the sun at to direct presents are trived in the sun at to direct presents. mand the state of the surface in section of the surface in surface of that required. Moreover, of the velocity required at the moment of collision "more than half would be derived from the mutual attraction of the two ment of collision." more than half would be derived from the mutual attraction of the two bodies in their approach to each other." In the case, for instance, of two bedies, each equal in volume to the sun but of one-half the density, the amount of velocity negatived by mutual attraction would be 274 miles a second. To obtain, then, the requisite 475, we have only to assume an initial or properted velocity of 202 miles per second. Mr. Croil submits that when we take into consideration the magnitude of the stellar universe we may as reasonably assume an initial velocity of 676 or 1,700 as 202 miles per second. But in the first-named case the sum of heat generated in a moment would self se for 270,000,600, and in the second case for 800,000,000 years at the present rate of radiation. Mr. Croil is, secordingly, disposed to modify the opinion formerly expressed by him in "Cimate and Time," that "the total quantity of calculful power possessed by the sun continuous consideration for the sun of the sun o

'Morgan's Horror," by George Manville Fann (Cassell Co.), is literally a two of horror, and little class. We commend it to the lovers of blood curding romance. commend it to the lovers of blood carding romance.
"What's Mine," Mine," by George Macdonald (Harner's France) and Square alterary is a picture-square story of life and manners in the Scottish Highlands, with some straing situations.
"The Fourist Myster," by Arthur Dudley Vinton (J. S. Uzuven A. Co.), is as the gover antiv amounters, a

"The Function Mysters" be Arthur Duttey Vinton U.S. Chiven & Chapter, as the rever a prive amonars, a chiralities detective story." Whith a completene protonial a variety of characters.

We have received the twelfth volume of "The Seattery Employees continued by Heaver 1. Nexus. The relative for the property of the protonial feet to Heaver 1. Nexus. The relative for the protonial feet of the protonial feet of the relative for the

"The Mountain Campaigns in Georgia" is the little of

to engreening by A. R. Wang, who visited in person the basic flexis depicted.

Its accords volume of travel "Botasical Yest Book" and otherwise by Ivrael. Binkerman, I work the Prof. trouders of therwise University, and telegramming to interest and structure, the elements and the physiological reculibes of photosical elements in the physiological reculibes of photosical elements and the physiological reculibres of the state of the

there and fourth continues of the work are alternated to the work as in preparation, and while actions on the work as in preparation, and while a simple, almost meagre plot. "Fixade." by Beatries Ley 1d. Quarten, boutent is an interesting story and work race of the soil. The attion, find a factor of the soil. The attion, find a factor of the soil for the product of the most of the lower and middle classes. In the mains and special of the factor of the lower and incline classes that the factor of the lower and incline classes that the factor of the lower and incline classes that the factor of the lower and incline classes. The sense is industriately in Pleaste and filtering, of both of whice places we obtain pleasing ginness.

The amortmous author of "Remark Texadings in the Protestant Churches, if Timbels & Sone) tracts the subject with continentable fractaness. He except to prove that the frostening of the strength series claim their disclose that the frostening clarences and practices of the arch seems of the distinctive doctrines and practices of the strength of the facilities in the property of the distinctive doctrines and practices of the strength of the facilities in the classes of the distinctive doctrines and strength of the facilities of domine property of the distinctive doctrines are also with equal energy. Every distinctive doctrine in the places of the facilities in common and second the class of the classes of author of the system of the system of the system of the system of the classes of author of the system of th

They end

PORMS WORTH READENG. Levely Mun.

THE SUN, SUNDAY, FEBRUARY 24, 1884—TWELVE PAGES

to Mrs. Birs Archard Conner of New York, memb O, sweet, dear man, we love thy ways,

And all the glory that is thine. Woman full oft has won thy love, Aye, often thought three lord and king. Taken thy name and sought to prove. That thou a nobler life couldnt bring.

Thy tender look and lovely emiles The world had never seen be Old Satan brought his subtle wiles. To slow Eupurates' Eden shore.

No arra deceit can use are thine; And heaven knows that thou art fair; Then thenest where Love builds her shrine. To sigh, and pray, and worship there.

By bread alone thou dost not live, or wet is wine slone thy drink; All vices from thy presence strink

O, matchiers man, what better praire With just herseif for company ! LARSFORT, N. Y. WELCONE SPREEKS.

Willfulness and Pattener. From Donahoe's Magazine. I said I am going into the garden.
Into the dust of the sweetness of life;
I can stay in the we erges in onder.
Where o row and six kness and pain are so rife; So I shot my feet in their golden samials.

And I loosed are goven with a ribbon of blue,
And into the gorden we at I sharing.
The birds in the boughs fell a slaging too.

Just at the wicket I met with Pat elec. Grave was her face, and pure and kind; But oh, I loved not ber san a mattle. Such some inches were not to my inted. Said Patience, "Go not into the garden, But come with me by the difficult ways Over the wastes and the wide treas mon To the bigner levels of nove and praise!"

Gaviy I laughed as I opened the wicket, And Patience, pitching fitted away. The garden gony was full of the mirrhing, The morning changed to the glamour of day,

O as set were the winds among my fresses, And sweet the dowers that bent at my knees; But were the fruits that for a time wanning, but uted come was my soul with these. And some I were hand in hand with Pattence, True ling has few on the authorit ways, Over the mast wand the winderness mountains, To the nighter rever of love and praise!

HOSA MULHOLLAND. Prom the cuttage Hearth.
We anestion of the wience wast,
Uf you a that position distinit spinses;
What of their froure and their pa 1,
Have the one sorrows, byte and fear-y
Do the same those is made glad their party.
Do they have one with cancas white.
Move stately, answering the breeze f

Have they their chest, their Christma day?
Know they Mahranet? Ruddha? One,
Or all, or note: And do they gray?
And have they wrought as we have done?
We cannot grays; Its bart indeed,
Our own grist tite of its thin one;
Through conturns unit of to read,
And who is future shart forecast?

We know the hand that holds in check. The whirling worlds, each an its coarse, And saves the universe from week. And certi. This tremendous Force. However, the saves he all others, the same and stars do all others. The same and stars do all others. The same and stars do all others. To swerve from its appointed way.

The dangerous boon alone to us to give, to choose twisted and well, Redefine redefinee: One To build our beaven, or dig our bed. But one great from the great for the red from the red Smittee were, the net 7 with endoding Nations about period. Though the red Smittee were, the net 7 with endoding the own; toud's souls are safe with God. CELIA THARTES

Hymn for the First Church in Cambridge. From the tenton Transcript. Lord, Thou has been a conformation.

Lord, Thou has been as so of one of the conformation between the forth the chosen reaching the conformation through the conformation of the off dwelling place.

Here is the bountons table a read, Thy grace our oungering sous na h fed.

Thy might have been our spear and shield.

Lift high Thy buckler, Lepl of hosts! Quart Thou Thy servants, some and aires, White on the guilless neather consts They ngilt immediates after free!

The savage wilderfies remote blad from U.) works and wonders sung; So from the rech that Moses conte. The tountain of the descripring, Soon shall the slumbering morn awake, From wandering stars of error forest, When Christ the bread of heaven shall break For saints that two a common crossed.

The walls that fence ilis flocks apart And every tongue and every heart Shall we come in the new-born day,

Then shall this glorious Church rejoice.
Itis word of produce to recall— One sheltering fold, one shelterd's voice, One God and Father over all,

The Silver Cloud. From the Atlantic Mouthly. I saw a silver cloud at exemple.
At exemple a fit is sixed cloud;
With outstreamed, anywhere whice, a paty dove
how select toward the west, and thus she said: Ah, joy was minet. He butted me in his beams,

Kies, Riss once more my in s, my pulled lips; Bring me ones more the cost I know at morn; Cast that this gran about m; ere I die, Ere in a most of tears I melt nous; "

While yet six space her cloudy patter changed, And she become a wreath of the ming fire That did to score the solver evening star; But sin' she daracted this of as fiby want.

Slowly she darkened, slowly, till she was Whiter than ades up the four follows. Then came a cold, low wind and breathed on her; She in a met of tears did mail away.

From the Somerville Journal.

She has a deinte, shell-like ear.

No distalline, shell-like ear.

Small behind school, and fine,
Roft, loving socks around it twine;
I'm sure in all the world its peer.

Noter was seen.

And then a reached of a mouth that Covaling to a mouth White britise each and penting lips. A lingle from the feature of the South, My fond mean's queen! But this winet I must confess

All that she hears with shell-like ear.
With resulted figs she tells, I fear.
And so Fre get to many a mess
Quite unforescent Welcon in an Annaraph Albam.

om the Athens Ereaing Journal FREED: We saile thy garlands, fairest one: But the sense of day Alegonie, Sony wit offere see it Fairent flower Boothing in the garden's bower, While the minural trans are shed. Our each sleeping flowret's read. Wreathe the exclands fairest one:

Sun will summer's reign begone. Temperternine with call buy real Spenging o'er the harres beath. Att store winter's lessues hand. Sun in beforeness o'er the land. Weathe the garlands fairest one,
Edun will set iff a growine sum.
Lettie gay drawn too gut ky fade,
Lettie hearts are some becased.
By wate the garlands ero for bloom
Fade around the earlier bond.
W. B. Hancoca, Dec. 9, 1838.

Atrice, Warial and Wicked. All writers district this warmen should take:
You're said to examine should take:
You're said to example; you're said to be cought.
You have that that no will a your opinious can shake.
Spitter folks no fed to district said green enougher. You may talk but don't write your convictions, for they You're street here us at you're street is securable; Use words of the month, for may words of your pen. Are most transferants in each of expressing a towaght, and have a query way of my earlier made.

To teach you a beginning or more discussing the continues of the continu A word that the rate of our above when it's dead;
You're cur, but exact, route cure to be caught;
At times intestinate and the same to be caught;
And is givery, miscale to a manufe has wrought;
But the word facts conven when cells has ded,
May be safely under or a new acting tought.

The Brevity of Life. From the Sheltering Acade.

Rebold!

How entria span

Fasting enter a cold.

To be served to a life of insult

Surveyed cast the and four institute of a cold.

Surveyed cast the and four institute was then

serveyed cast the and four institute was the serveyed.

Alasi that?

That come, and white shalf year.

The posts of bindars early, which having run

The posts of bindars early, which having run

Their seven shop steggs o'er, their short-lived task is

done.

How seen
Our new bern light
Athins to full-hard though
And this how seen to gray harred night.
We spring, we tud we blossen, ind we blast
Ere we can count far days, our days they flee so fast.

ARIOTOGRACY IN ENGLAND. Convertable, 18 C. by Adem Sudans NO. XIX.

A Robioman Jadred Sometimes Americans attribute to an aris toeracy both merits and graces that are no often centred in an individual; nevertheless there are members of the class whose noble pess is inuate, and the memory of whose ac quaintance it is a delight to recall. The pleture of one, especially, will linger long with me. He was both an Irish and an English peer; of illustrious lineage and almost the highest rank; middle-aged and unmarried when I first met him; of enormous fortune and, of course with troops of friends. His manner was the perfection of simplicity; as natural as that of a peasant, as refined as that of a prince ought to be. It made me think of the exquisite clearpess of water or of a diamond. There was no suggestion of manner at all. You saw straight

through it to the man,

The most definite consciousness of rank l ever discovered in him was his humistry that he should be an hereditary poor. He said to me he was a sorry legislator. He beleved, indeed, that the peerage was doomed. and, though he never admitted so much, I think he believed it had no right to exist, that tought to be swept away. But he was in ne haste to bring out the broom, and very well content that the institution should last his time. Still, he voted with the Liberals on at all, for he was often out of England years at a time. He was a picked man of countries: had seen Japan and the United States, as well as every European court,

In his youth he visited with his tutor one of the little German principalities, where the British envey at once offered to present the social magnate at the petty court. The peer was willing, but he was very fond of his tutor a man only a few years older than himself, and a person of great refinement. So the nobleman asked the Minister to present his friend at the same time; but this the punctiflous represen tative declared to be impossible; a tutor could not possibly go to court; he would not ever submit so preposterous a proposition to the palace functionaries. The young aristocrat however refused to be presented without his friend, and, though his name had been sent in, it was withdrawn, and the British Jonsthan proceeded with his David to another dukedom where the chamberlains and the dintomatists did not disturb them.

He perceived, nevertheless, the advantages of his nobility. We were together once for a day or two in Italy, and I recollect his telling me that he had just left the party of a kinsman, a man of enormous wealth and great position who had twice refused a peerage; but the peer declared he had himself received far more con alderation in travelling than his relation who was not noble. The title counted with the couriers and Swiss inukeepers. He chuckled a ittle at the sycophancy, but it was in scorn. He had the sofest, blandest manner, the gen

that smile I have everseen in a man, combined with perfect self-possession and dignity of bearing. His courtesy was unfailing, and not confined to deportment; it was carried into deeds. He was incessantly doing something to add to the comfort or happiness of others. I an recall a score of instances in which he considered mine; and I cannot flatter myself that was exceptional in his regard. Once he breakfasted with me to meet an American of good position, but who was often boorish in his behavior. On this occasion the republican complained of the churlishness of the Eng ish, who, he said, never invited Americans to their clubs. He had been in London for a month and met a number of prominent Engishmen, no one of whom had shown him this civility. I blushed for the taste of my compatriot, but before the party separated the Eng-lishman inquired of me the American's adlress, and the same day sent him an invitation to the most exclusive club in London. This liberal patrician was connected with

half the nobility, and at one or two houses where I was fortunate enough to be on intin ate terms I sometimes met bim when there sere no other guests. He was then perfectly loughtful. We spent hours together. He told me stories of all the great English people, in itlated me tato the secrets of family histories sparing nei hor national foibles nor individual poculiarities; for he was not insipid; he was a shrewd observer, and not averse to satire, for all his amiability. He knew, or had known, every one worth knowing in the highest English society. He had never known any other, and, if there was a narrowness at all about him it came from this restriction of his English field of vision. He could describe the career and the character of every Prime Minister and Ambassador for the last forty years. If he spoke of any people I had not met who he thought would interest me, he would either give me letters them or more often write direct to them and ask them to invite me. Many a tour of visits he thus arranged, passing me on from one de-

lightful house to another.
I was always charmed to see him when I entered a strange house to d'nner, or to sit near him, whether the hosts were old or new sequaintances. He looked out for my prodence; always had me put up as high as he could, and near agreeable people; asked me whom I wished to know, and presented me with the most favorable introductions, though

his endorsement was itself sufficient in any circle in England.

His heart was warm as well as his urbanity delightful. When the great fire in Chicago ocfor a hundred pounds, which he begged me to serward for the benefit of the sufferers; and shortly afterward enclosed a second check for fifty more, regretting that the Irish troubles had so reduced his income that he was unable to contribute as freely as he desired. But he said he had received too many kindnesses from Americans not to wish to do something when Americans were in distress.

He had apparently no aptitude or ambitton for public life, and had never been in politica, lie hardly possessed first-rate ability, yet his ideas were often original, and his penetration was keen. He was red read and spoke several languages: his taste in art and his appreciation of nature were alike refined. His opportunities, of course, had been the best and as far as storing his mind and cultivating his taste, he had made the best use of them; but he had not turned his faculties to any graver account. He was a good anaster, a loyal friend, a refined, andable associate but he made no effort to be or to do more. Perhans he knew his own limitations, and at least he did no positive harm to any one. His life was seen the decart eace and unobtrusive charties. Whether this was all that he should have achieved in so splendid a position his own conscience best could declare. Since he is not living. I may say that he always impressed me as facility that he had not made sufficient use of his advantages. He weemed aware that with said he had received too many kindnesses from

esistate best count declare. Since he is not living. I may say that he always impressed me as feeling that he had not made sufficient use of his advantances. He seemed aware that, with each gifts of fortune and station, he ought to have accomplished something more for his country or the world. But of how few cannot this be said in any country or in any class.

When I first met this choice specimen of the manhood of any nation, arist erratu or republican, he had an income of 250,650, and I was told by those who knew him well that his kindnesses and charities on his own estates had made him the idol of his tenants; but the crash in Irish fortunes came, and he sufficiell with the rest, He sleward was shot, his own life was not safe on his own opportr, and he was an exile from the lands his fathers had held for generations. His income feel to 1900 or 2700. And then his nobility became conspicuous, it was an attribute not an annumer. When the drapery feli off the figure was seen to advantage, He made no complaint of the injustice of treating him as it he had been a harsh land-ord and crude mater; he did not intermit his efforts to do then goed at whose hand he sufficiel. And this was not from pushlanianity. It was not the course of the Irish party and to the points of Mr. Gladatone at that epoch, He may have been warped by his interest or blinded by his partiality, but he took a more decided stand to politics than every before the weat to the liquies of Lords to yote in accordance with his convictions and against these with whom he had formerly acted; but neither his misfortunes nor his opinions induced him to swerve in his treatment of his tenants, or afforted his feeling for them. No unkind word for them escaned his lips when he discussed the situation, which he at least had not provoked was almost Christ-like.

The moment of his diesster was most inopportune. He had married not ions before a lady of lineage equal to his own, but the wealth

he had offered by disappeared, and the orronat seemed a meetery without its appendages of the said fortune. One of their relatives told my they were living in loggings in an unfashionable part of London, and kept no carriage; "and yoo know what that means," said the high-born dame. "A doctor or a lawyer may set up a carriage or put it down, according as he prospers for the time; but for one of us—"and she could not complete the sentence.

Her nobe kinaman d d not take his reverses so to heart. He offered his paternal acres and the massion stocked with statuary for said, and white waiting for the result took a modest little box near London, where he was good enough to ask me to be his guest. I was charmed to go, and of all the aristocratic residences I visited in England none so impressed me with the nobility of its master. I was received with the same courtly grace as if the mansion had been a ducal one. There was me retinue of followers, no groat service of plate; a single man to wait, a table ungarnished with costly wines; but no excuess were made; there was no advanton to the change of circumstances or the lack of state. The estenousy was as punctibus, the conversation as brilliant and une estended, the grand air as any parent as ever, I was taken in a fly to visit earls, who avidently thought no less of their per because of the distinction on of his incume; and democrat as I was I could not but think that if birth and rank produced such results as the unconscious dismits and engenening grace with which misfortune was—not berne, but lignored—not avery consequence of arcatecracy could be condemned. Only I insist that the had been here an amend of a noteen and here had not been just as much of a noteen and here had here here as much of a noteen and here here here is consequenced. He was one of nature's aristocrats.

ADAM BADRAU.

A GREAT GUN PACTORY.

Krupp's Enermone Letablishment. In these days, when Congress will soon be called upon to decide whether to establish Government gun foundries or to contract with private enterprise for the exclusive production of heavy ordnance, or to unite, in some form public with private resources, a special interest attaches to Mr. Moncure D. Conway's arti-

cle in Harper's Magazine for March. This article, entitled "An Iron City Beside the Ruhr," is a description of Krupp's famous factories at Essen. Here we have works oceupying 500 acres, half of them under cover, and employing 11.211 persons. Taking together the inborers in the branch works at Neuweld and Sayn, in the many German mines owned by Krupp, and in the Spanish mines at Bilbao, from which the finest ores he uses are brought, we have an aggregate of 19,605 employees, while their familles would increase he number to 65,381 persons supported by Krupp's works. Krupp also owns four sea steamers, and connected with his works are forty-two miles of railway, with their rolling stock, and forty miles of telegraph wires, with thirty-five stations. He also runs a hotel, and a great central supply store for the so-called workmen's colonies, which, as is well known. he has built in the neighborhood.

At the outset of his article Mr. Conway cor reets an erroneous impression derived by many people:

Two-thirds of the work here are devoted to things be longing to the arts of peace—all the parts of steam-en-gines, lonemotives, from axies, bridges, rails, wheels, tires, switches, springs, shafts for steamers, mint dies, rudders, and parts of all varieties of iron machinery, are prepared here for manufacturers. That is, they are not embined here: all the iron parts of a locomotive may be obtained here, but not a locumo ive, withough nearly all of the locomotives and engines used in the works are mode in them. Both Brahma and Siva are in the employ of Mr. Krupp, but the creative power preponderates.

But of course it is the ordnance that has nade Krupp's name famous the world over. Mr. Conway says that for no amount of money can the French buy Krupp guns, lest they should be used for killing Germans; whereas Englishmen, wherever killed in war, are generally killed with English guns. This article also states that Krupp "has lately declined an order from America to supply steel blocks for cannon, for the reason that he cannot feel sure that added metal or inferior work may not in-volve his metal in bad results." But it is quite certain that he has all the work be wants to do; and, indeed, we may remark here that one of the reasons why our own Gun Foundry Board declined to recommend the Krupp or private-enterprise system of supplying heavy guns complete was the danger that Govern ment work, in emergencies, might be hindere by important private business interests and contracts. However this may be, hore are some statistics of the daily labor:

In the Essen works there are 1,559 big ovens, 433 steam boilers, 430 steam ongines (representing together 18,58° horse-power), 1,622 machine tools, 82 steam ham-mers, 21 rolling trains—involving a daily consumption of 3,100 tone of coal and coke by the 1,648 furnace whose draught is through chinneys of which one is 289 feet high, with a diameter of 30 feet at the bottom. The daily concemption of water—brought from the Rubr by an squeduct—is 24.7% cubic metres. There are 1.778 steel lamps, and 7% cubic metres of gas have been use: annualr, though this quantity has just been diminished by the introduction of electric lights. The work cases only on Sunday and on two or three holidays. The production is enormous. When the Emperor William visited the pince in 1877, Mr. Krupp caused to be set before him the productions of a single day: 1,800 raits, 160 wheel tires, 120 axies, 160 railway wheels, 430 railway wedges, 1,000 bumbabells. The daily capacity of the works is much more: 2,700 rails (two and a haif miles), 350 tires, 150 axies, 160 wheels, 1,000 wedges. 1.500 hombsheils. In a great they can produce 250 field pleas, thirty 5.7 such cannon, fifteen 9.33 such cannon, eight 11 seed cannon, one 14 such gun, the weight of the set being 57 short fols, its length 2.7 feet 7 shears. burst, in all. Of these, 17 were from 5.400 guns cor structed on a system shand and in 1879. Of those made after, only 1 in 2,38) have burst. During the late Fran-co-German war, when such yest numers of his field funs were used—many of them having noon subjected to a strain of nearly 3,000 discharges-not one burst and only one accident occurred, this being to a neid gun whose breech block was not tightly closed.

Mr. Conway's article is a panegyric, and he is perhaps as much impressed on the poetlest as on the scientific side. But at least he has the advantage, perhaps partly accorded for the reason that he was not acquainted with the intriencies of gunsmithers, of being admitted to nepect actual work going on under the big hammers Fritz and Max and elsowhere, a privliegs denied to our Gun Foundry Board. Mr. Conway says he owes the favor to Mr. Kasson. on whose account Mr. Krupp declared that "although such a concession had not been made before," it should "for ones be allowed," The exterior arrangements of the Essen works have always been open to observation.

NAVAL ACADEMY GRADUATES. A Bill to Great Commissions which were Wrotefully Withheld.

TO THE EDITOR OF THE SUN-Sir: Among the bills relating to the navy now before the House is one which is intended to undo an act of injustice to a number of roung naval officers which was percetrated under the administration of Secretary Chandler, under the plea of cutting away the top-heavy list of naval ontcers. The plea was a sham, because instead of cutting away at the top it out at the bottom.

On Aug. 5, 1882, after a deal of discussion on the Naval Appropriation bill a rider was tacked on which limited the number of commissions to be issued to graduates of the Naval Academy to the number of promotions from the rank of ensign during the year preceding the annual sasign during the year precessing the annual examination. The rest of the graduates were to be discharged with one years see pay 10 was provided however, that at least ten earlier should be found with this get except as it affected could be found with this get except as it affected certain cadet midsulpmen who had been in the services gloud six years. These found non-made oath that they would serve for a term of early years. The Government had practically agreed to suppoy then for that this at least, 10 feet, there young near had studied and worked for over five years under the least that they would receive if a commissions in the navy. No minution of any other fourter had ever reacted them. The course of study had unfitted them or stay they compatible them to commissions they were told that only ten of them to commissions they were told that only ten of the class, which turns for any other occupation. When just about to return from the tweeters ourse at sea which about I have entitled them to commissions they were tood that only ten of the class, which numbered seventy, would be accepted. On account of an unexpected number of vacancies in the marine cories as well as in the rank of eneigh twenty three were commissioned and the rest were turned adrift. They say that this act was a breach of contract. The justice of their chain was acknowledged when a similar bill relating to west Point was therein provided that only those cades should be affected by it who should be appointed after the act should become law. Last year the Senate passed an act restoring these young men to the navy but it failed to reach a vote in the House. The bill to restore them has again been introduced in both House, and it ought to pass.

Washington, Feb. 1. HUME RULE AND SEPARATION. O'Reilly, Writing from Rome, Gives Bound Advice to Irishmen.

ROME, Jan. 26 .- To all here in Rome to whom the just cause of Ireland is dear the present attitude of the English Government and people toward the National League and the people whom it represents is a source of unspeakable anxiety. I do not know how it has happened, but the fact is that among the Italian press the best-intentioned" journals (to use a French phrase) have been schooled to look upon the Irish Nationalists and the Parliamentary puris as men banded together and sworn to accomplish the total separation of Ireland from the British crown. This idea of separation is so connected here, in the popular and the official mind, with the aims and efforts of Mr. Parnell and his followers, that it will require some time and no little labor to change public opin-

ion in this repect. All along I feared and felt that this same 'flixed idea" of separation, so general in Great Britain, and taken in connection with the deep national hatred of everything Irish and everything Papist, would rouse the English and Scotch soul into a frenzy of intolerance and a ferocious spirit of expression when Parliament reassembled.

The London Times and the other English organs of public opinion which have taken up the cry of "Separation," having succe-ted in marshalling against home rule all the passions. the prejudices, and the interests of Great Britain, will now hound on Lord Salisbury into coercive measures more complete and effective than any proposed by Gladstone and carried

out by Lord Spencer.

The time has some when the union of the Catholic clergy and their people in forwarding the national cause will be proved to be providential. The temper of the Irish people is now subjected to the most trying test-that of being patient, not only under a great and unexpected disappointment, but of not losing their self-control and their storn discipline of moderation and peaceful expectancy while their rulers are enacting and executing a new code of repression and violating the dearest constitutional rights of the citizen in the name

of the Constitution.

Now is the time, as the eyes of the world are fixed on the Parliamentary drams at Westminster, when violent acts of any kind, anderaken or accomplished to help Ire and by terrifying England, will lose to the former the sympathies of millions. May God inspire the true Irish people with that superbuman heroism so often shown in former times, but now more than ever necessary, when the longsought-for goal is near at hand, and when a supreme trial of patient endurance and moderation is sure to be followed by a supreme

eration is sure to be followed by a supreme triumph over the injustice of conturies. The Sun, which even here in Italy, where Piedmonders is hand and glove with England, is acknowledged to have revolutionized public opinion in the United States in favor of what seemed a tororn hope and a list cause, can now render duen Ireland a still grader service by preaching to Irishmen at home and abroad pattence, suffer airrol, absolute abstention from all violence, all riegal acts. This perfect sufficiently in the large pattence of the investor of Ireland as well as for conscience sake, will gain Irishmen. discipling carried out for the love of Iresand as well as for conscience sake, will gain Irishman the respect, the sympaths, the admiration, the moral surport, of the whole civitized world.

To every Irishman, at home and anceod, to whom Tree Sun may bring its blessed comfort, logether with this letter of intel. I would say: There is one living man to whom the New World and the Old look may with an admiring revergence, which increases steadily from day to day. The light of his saintly life and his subline and or cortune teachings have matthed the

and the Oid look up with an elmiring revergence, which increases steadily from day to day, The light of his saintly life and his subline and opportune teachings have justified the prophetic describtion of him attributed to our own St. Marathy: inner in colo—light in neaven. At any rate, in the hour of Ireland's darkest need his great mind took in her studation—her sufferings in the past, her just change and aspirations in the past, her just change and aspirations in the present and her pregnant and riorious future. And, spanning the suggestions and seductions of a tempting and importunate diplomary, his great heart did for Ire and what our utmost gratitude can never repay—bound together in one hey purpose the Irish herarchy and their peope. It was a pieder and prophecy of near and certain triumb. Thus was need to Ireland in her dark night a true light of hope and comfort downing from the heavens, the harbinger of coming day. For his dear sake, whom iristmen reverses their common parent and guide, and whom they have the deepest reason to love as their friend, let them say no word and do no act which can adden a heart already overflowing with bitterness.

But we owe it to Ireland as well that we weaken her cause by no fatal outburst of temper, of violence, of unholy midnight deeds, of dynamite conspiracy.

And since I have said so much here in al-

which can sadden a heart alroady overflowing with bitterness.

But we owe it to Irolane! as well that we weaken her cause by no fatal outburst of lemper, of violence, of unholy midnight deeds, of dynamite conspiracy.

And since I have said so much here in allusion to be NIII., let me devote the remainder of this letter to him. It is a marvel to those around him how he can withstand at his sac around him how he can withstand at his sac around him how he can withstand at his sac around him how he can withstand at his sac around him how he can withstand at his sac around him how he can withstand at his sac around him how he can withstand at his sac excluding weighed documents as the lotters to the Emperor William and Prince Bismarck. I have been study ng carefully the great energic leaf homewise he on the Christian constitution of States, and the more I dudy it the more amount of the weighings matter condensed into this dogmain utterance, but in the more necessary form, and expressed in such Latin at Glosto would admire.

Now, following close on this, comos the energiant to the Arendishaps and Bishops of Prussis, another most admirable document, evidently toreshabited with that kingdom, and while will rotan some other with that kingdom, and while will rotan some other with that kingdom, and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and while will rotan some other with that kingdom and hile will rotan some other with that kingdom and hile will rotan some other with the sound appear with the property in the constitution of the amount of th

I see to depart.
Before leaving the autechamber Monsignor Noeth, the Pope's long for-Penio, said but at a said and the Pope's long for-Penio, said but at a said and the gradual Popes who has governed the Church was in pustified. Our, he said, the Hay I ather avoid pustified.

Penes who has governed the Charch was indipartial. Once, he said, the Hory I ather available of the caunot help h most.

I have end that I saw no pertrait of Lee XI L
that at alconveys he was a gentle suffering statistic expression of L submitted and that there is one in his brother's Carlinal expression of L submitted and at the caunot have been in the Berton of Palese which strick me as being an excelent his case, But it soniya profile. The force is reasonabled knowing and wrapt of action to be deather the affar.

Ca dinal Pecci, who is two years older than he Pope, being it is one of the most accusible of men. Dr. Kirler Architectop of Enlarge of the met accusible of men. Dr. Kirler Architectop of Enlarge of his continuous has been an above the met accusible of men. Dr. Kirler Architectop of Enlarge of his continuous since had a most affectionate growing. The Cardinal is not as feed to a submitted about the great berden of our so carry that has weighed acon his land. By the cardinal his related about their analyst to prove of the cardinal is related to me for against the feed of the Lardinal. He results about their analyst their boycood, their solves days and their randow. The head the out has weighed acon his land. The cardinal is related to me for angelie downtion of her name also in an the face of the Lardinal. He results do not have and unlimited that type the learned Cardinal. He resulted the profile of the cardinal is the medication. Such visits held to the consequence of the angelie of the Armerican pagerims during their state to cheer American pagerims during their state to cheer American pagerims during their state in Rome. They help mo in my real agony about I reland.

But it is no little consolation to see that I reland has such friends, as I know she has, both in little cardinals as I know she has, both in little cardinals as I know she has, both in little cardinals as I know she has, both in little cardinals as I know she has,

BERNARD O'REILLY,